Water Reclamation Facilities

There are five Water Reclamation Facilities (WRF) in Fulton County. These facilities treated an average of 43 million gallons a day (mgd) in 2008.

The Big Creek, Johns Creek, and Little River Water Reclamation Facilities are located in North Fulton.

• Big Creek Water Reclamation Facility

1080 Marietta Hwy, Roswell, GA 30075

Permitted capacity 24mgd

• Johns Creek Water Reclamation Facility

8100 Riverbirch Drive, Roswell, GA 30074

Permitted capacity 7 mgd

• Little River Water Reclamation Facility

2415 Cox Road, Woodstock, 30188

Permitted capacity of 1 mgd

• Johns Creek Environmental Campus (JCEC) is currently under construction.

8100 Holcomb Bridge Road, Alpharetta, GA 30022

Permitted capacity of 15 mgd

For a guided tour of these North Fulton facilities, call (770) 642-0455. Tour is restricted at (JCEC) Johns Creek Environmental Campus due to construction.

The Camp Creek and Little Bear Water Reclamation Facilities are located in South Fulton.

• Camp Creek Water Reclamation Facility

7520 Cochran Road, College Park, 30349

Permitted capacity of 24 mgd

• Little Bear Water Reclamation Facility

705 Rippling Brook Drive, Palmetto, GA 30268

Permitted capacity of 100,000 gallons per day

For a guided tour of these South Fulton facilities, call (770) 774-1638.

BIG CREEK WRF

The Big Creek WRF is located at 1030 Marietta Highway, Roswell, in north Fulton County west of the Chattahoochee River in the Big Creek Basin of Fulton County. The Big Creek WRF serves the largest service area and largest total flow of treatment facilities in North Fulton County. The service area is approximately 70 square miles and includes Roswell, Alpharetta, and areas of Cobb, Fulton, and DeKalb Counties and portion of Milton. The Big Creek WRF was originally constructed at its current location in 1969 with a treatment capacity of 0.75 MGD. Several upgrades and expansions have been completed on the facility to its current permitted treatment capacity of 24 MGD.

The facility was upgraded in 1991 to 24 MGD through the construction and addition of new headworks, influent screening and degritting, aeration chambers, secondary clarifiers, activated sludge handling and dewatering, sand filtration, and ultraviolet (UV) disinfection. The UV System was upgraded in 2006. Fulton County is proceeding with plans to upgrade and expand the Big Creek WRF from 24 to 38 MGD to meet the projected wastewater treatment demands.

Treated wastewater from the Big Creek WRF is discharged to the Chattahoochee River. Dewatered sludge is disposed offsite to landfill.

JOHNS CREEK WRF

The Johns Creek WRF is located at 8100 Riverbirch Drive, Roswell, GA 30074. The plant was originally constructed in 1980 with an average daily design capacity of 5 MGD and was expanded in 1992 to a permitted discharged capacity of 7 MGD through the addition of two package treatment units (1MGD each). The plant currently serves approximately 33 square miles of the service area in north Fulton including the City of Johns Creek and a portion of Roswell, Sandy Springs and DeKalb County.

Wastewater is screened via mechanical screens prior entering to influent wet well at Johns Creek pump station. Wastewater from the pump station wet well is pumped to the grit removal chambers. Following the grit chamber, the wastewater flow is split between the main plant aeration basins and the two package treatment plants. Lime can be added to either flow for pH control. Flow to the package plants is controlled via a weir gate located downstream of the grit chambers. An odor control system is provided for the grit chamber and influent bar screens areas.

Wastewater flows by gravity from the grit chamber to three aeration basins. These basins have been modified to allow flow in series between basins. All basins are provided with fine bubble membrane diffusers. The mixed liquor form the basins flow to two square secondary clarifiers, located downstream of the aeration basins. Settled sludge from secondary clarifiers is removed by RAS pumps and returned to the aeration basins and also wasted to aerobic digesters. Effluent from the clarifiers flows to two traveling bridge-sand filters. Treated effluent from the package Plants is recombined for combined disinfection. There are two effluent pumps located downstream of the re-aeration structure to pump effluent to

the Chattahoochee River when the river level is high. The plant discharges to the Chattahoochee River downstream of the confluence of Johns Creek and Chattahoochee River.

Waste activated sludge from the clarifiers is pumped to coarse air bubble aerobic digesters. Digested sludge is then pumped to a 4,000-gallon sludge storage tank prior to dewatering by belt filter press. A packaged polymer blending and injection system is used to condition the sludge as it is fed to the belt filter press.

Dewatered sludge is disposed offsite to landfill.

Johns Creek WRF is soon to be decommissioned with all wastewater re-routed to the new Johns Creek Environmental Campus for treatment.

LITTLE RIVER WRF

The Little River WRF is located at 2415 Cox Road in Woodstock, GA, 30188, in neighboring Cherokee County. The plant serves Mountain Park and nearby communities in north Fulton and part of Cherokee County. The plant property is located at the confluence of Rocky Creek and Little River and is surrounded by a golf course and residential areas. The plant serves a portion of Milton and Roswell service area in north Fulton and discharges to the Little River.

Wastewater from the collection system passes through a Parshall flume and is pumped from the influent pump station to a mechanical bar screen. The pump station contains three pumps with a combined maximum capacity of approximately 3 MGD. Downstream of the bar screen, wastewater splits between two biological treatment trains. Each train consists of a fermentation zone, two anoxic zones and an aerobic zone arranged in series. These zones provide for BOD, phosphorus, and nitrogen removal. After secondary clarifiers flow enters into sand filters and UV channels for disinfection. The effluent is discharged to the Little River.

The Little River Land Application System (LAS) began operation in April 1995 and consists of effluent pumping, disinfection and delivery to the plant property line for use by an off-site user. The LAS is permitted to discharge up to 200,000 gallons per day (GPD). The Little River Plant is permitted for 1 MGD.

JOHNS CREEK ENVIRONMENTAL CAMPUS (JCEC)

The new Johns Creek Environmental Campus is located at 8100 Holcomb Bridge Road, Roswell, GA 30022. This facility uses a membrane biological reactor (MBR) to treat waste water to reuse standards, which is the latest technology available.

For more information please visit the JCEC website.

CAMP CREEK WRF

Camp Creek WRF is located at 7520 Cochran Road, College Park, GA 30349.

The Camp Creek Plant treats wastewater from all the residential, commercial, and industrial users in the south Fulton County, Union City, Fairburn, Palmetto, East point and portion of city of Atlanta. The influent flows from the Camp Creek, Cochran Road and Deep Creek Pump Stations to the headworks of the plant. The Camp Creek Plant also receives and treats septage from customers located within the Fulton County service area. Septage is currently received at the receiving station and enters the Plant with the combined Plant influent.

After screening at headworks, wastewater flows to grit separators and then split to north and south primary clarifiers, aeration basins and secondary clarifiers. After secondary clarifiers, the combine flow from north and south plants enters the sand filters and UV channels for disinfection. Afterwards, the post aeration effluent is discharged to the Chattahoochee River.

Waste sludge is pumped to three holding tanks and then dewatered by centrifuges. The dewatered sludge is hauled to a landfill for disposal.

The plant is permitted for 24 MGD average monthly flow.

LITTLE BEAR WRF

The Little Bear WRF is a package treatment facility located at 705 Rippling Brook Drive, Palmetto, Georgia. The facility serves the Wilkerson Mill Subdivision in South Fulton. The Plant was originally constructed in 1977 and has an average daily design capacity of 100,000 gallons per day (GPD) and receives wastewater flows from the Little Bear Pumping station which is located on the plant grounds.

Wastewater passes through a bar screen and flows into an aeration basin where it comes in contact with sludge from the re-aeration basin. The aeration basin mixed liquor flows to the final clarifiers and the final effluent is aerated and disinfected before being discharged to the Little Bear Creek. Settled sludge from the clarifiers is returned to the re-aeration and excess sludge and scum are wasted to the aerobic digester for additional treatment. The digested sludge is transported to Camp Creek Plant for dewatering and disposal to a landfill.